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**REMARKS**

Claims 1-14 and 16-27 are pending in the present Application. Claim 1 has been amended for better clarity. Reconsideration and allowance of the claims are respectfully requested in view of the following remarks.

Support for the amendments to Claim 1 can be found at least in the specification, in paragraphs [0008], [0009], [0010] and [0025]. No new matter has been introduced by these amendments.

**Claim Rejections Under 35 U.S.C. § 112, Second Paragraph**

Claim 1 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse the rejection.

Applicants assert that the construction of the Markush group in Claim 1, which reads "[a] polycarbonate composition comprising chloride, sulfate, phosphate or a combination of two or more of the foregoing ionic species" is proper alternative Markush language, and that the numerical limitation immediately following, which reads "in an amount of zero to about 100 parts per billion based on the total weight of the polycarbonate" applies to the entire Markush group. The claim has been amended to better express this point. MPEP § 2173.05(i) reads in part:

"However, when the Markush group occurs in a claim reciting a process or a combination (not a single compound), it is sufficient if the members of the group are disclosed in the specification to possess at least one property in common which is mainly responsible for their function in the claimed relationship, and it is clear from their very nature or from the prior art that all of them possess this property."

Thus, the numerical limitation applies equally to the members of the Markush group. Applicants note that a circumstance in which each specified ion or combination is at a level of

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zero ppb means the total of these ions is also zero ppb. Applicants believe these amendments fully comply with and address the Examiner's rejection. However, if Applicants' understanding of the rejection is different from the Examiner's intent, Applicants respectfully request the Examiner please so notify Applicants and a teleconference will be arranged to clarify. Otherwise, reconsideration is respectfully requested.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1-27 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by U.S. Patent No. 6,486,294 to Brack et. al. ("Brack"). Applicants respectfully traverse this rejection.

Brack extensively discloses a method for preparing a poly(carbonate-co-ester) block copolymer (abstract, Col. 1, line 49 to Col. 2, line 7), and a poly(carbonate-co-ester) having a carbonate block comprising an aromatic dihydroxy compound a carbonic acid diester. The poly(carbonate-co-ester) of Brack contains less than 3 weight-% of unincorporated polyester prepolymer (Col. 5, lines 59-60).

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Varient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987). Brack does not disclose or teach a polycarbonate substantially free of residual ions; nor does Brack disclose or teach levels of phenol, carbonic diester, aromatic dihydroxy compound, diaryl carbonates, or a combination comprising two or more of these at a level of zero to 500 ppm, as claimed in instant Claim 1. Brack also does not disclose or teach a method using an aromatic dihydroxy compound comprising up to about 200 parts per billion of ions based on the total weight of the aromatic dihydroxy compound, as claimed in instant Claim 9. Brack discloses purification of the polymer in the Examples (Col. 6, Lines 42-43), and discloses levels of less than 1.3% by weight of unincorporated polyester prepolymer in the purified polymer, thus teaching that purification of the polymer is required to remove the polyester prepolymer. However, Brack does not provide any teaching directed to the removal of residual ions.

The Examiner states in the Office Action that "it is noted that the ionic species in an amount of *zero* is inclusive of the ionic species not being present." (Examiner's emphasis

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included). Applicants understand this statement to mean that the Examiner views an amount of residual ions equal to zero as inherent in Brack. Applicants note that MPEP § 2112, IV, reads, in part:

“The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic,” (emphasis included). *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).”

Also,

“In relying upon the theory of inherency, the [E]xaminer must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art,” (emphasis in original). *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).”

The purification method disclosed by Brack comprises dissolving the polymer in a solvent such as chloroform, and precipitating the polymer from a non-solvent such as methanol (Col. 6, lines 42-43). One skilled in the art will appreciate that this method is a typical polymer isolation and purification method and is sufficient for reducing the amount of oligomeric or polymeric organic residues to levels of less than 3 % by weight as disclosed in Brack (Col. 5 lines 59-60); however, such methods are not capable of reducing residual ions to levels of 0 to 100 ppb as claimed in the instant claims. Therefore, the level of residual ions instantly claimed does not necessarily flow from the purification method taught in Brack.

Therefore, for at least the reasons detailed above, Brack does not anticipate the invention of the instant claims.

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Claim Rejections Under 35 U.S.C. § 103(a)

Claim 24 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Brack in view of U.S. Patent No. 6,271,290 to Inoue et. al. ("Inoue"). Applicants respectfully traverse this rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Inoue discloses a method of forming a polycarbonate which includes a sulfur-containing acidic compound and/or derivative (Col. 8, lines 59-60), specifically butyl-p-toluenesulfonate (Col. 9, line 54).

The combination of Brack in view of Inoue fails to disclose or teach the method of preparing a polycarbonate comprising a dihydroxy aromatic compound having up to about 200 ppb residual ions as claimed in instant Claim 9, from which Claim 24 depends. Inoue discloses removal of impurities such as particulate matter from the bisphenol and carbonic acid diester using a fluorinated resin membrane filter (Col. 6, lines 57-60), but does not teach that filtration is used to remove residual ions. Further, it will be appreciated by one skilled in the art that removal of residual ions from a solution of a polymer to levels of 0 to 100 ppb is not within the capability of filtration alone, but would require additional processing such as ion exchange. There is thus no suggestion that the combination of the two references would teach the invention of the instant claims, and therefore Brack in view of Inoue does not render the invention of the instant claims obvious.

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Claims 13 and 14 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Brack in view of U.S. Patent No. 6,608,165 to Funakoshi et. al. ("Funakoshi").

Applicants respectfully traverse this rejection.

Funakoshi discloses a process for producing an aromatic polycarbonate (Col. 2, lines 44-45) by melt-polycondensing a dihydroxy compound and a carbonic acid diester (Col. 2, lines 63-65), wherein the dihydroxy compound and carbonic acid diester each contain 3 microequivalents or less of aldehyde (Col. 4, lines 25-32) after contact hydrogenation (Col. 4 line 53). The total amount of transition metal and metalloid elements including Fe is 50 ppb or less (Col. 6 lines 44-47), the total alkali/alkaline earth metal is no more than 60 ppb (Col. 53-55). The raw materials are purified to remove transition metals, metal and metalloid impurities using known methods (Col. 7, lines 7-14).

While Funakoshi discloses that it is preferred to reduce the total content of metal impurities as much as possible (Col. 9, lines 16-23), specifically Fe to reduce color, the combination of Brack in view of Inoue fails to disclose or teach a method of preparing a polycarbonate comprising a dihydroxy aromatic compound having up to about 200 ppb residual ions (chloride, sulfate, phosphate, or a combination) as claimed in instant Claim 9, from which Claims 13 and 14 each depend. Funakoshi is silent as to these residual ions. Further, there is no suggestion or incentive that the combination of the two references would disclose or teach the claimed low residual ions of the instant claims. Therefore, Brack in view of Funakoshi does not render the invention of the instant claims obvious.

Claims 21, 22, and 23 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Brack in view of U.S. Patent No. 6,509,435 to Kageyama et. al. ("Kageyama"). Applicants respectfully traverse this rejection.

Kageyama discloses an unstabilized heat resistant polycarbonate (Col. 1, line 66 to Col. 2, line 2) and methods of preparing (Col. 2, line 32 to Col. 3, line 24) which use combinations of basic compounds containing sulfur, nitrogen, phosphorous, alkali metal, or combinations of these, as catalysts (Col. 7, line 36 to Col. 8, line 32). The polymer also contains a "C-radical scavenger" to reduce formation of gel foreign matter to no more than 5 parts by weight (Col. 13, lines 41-47).

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While Kageyama discloses addition of a "C-radical scavenger" and filtration to remove gels (Col. 15, lines 35-47), the combination of Brack in view of Kageyama fails to disclose or teach the method of preparing a polycarbonate comprising a dihydroxy aromatic compound having up to about 200 ppb residual ions (chloride, sulfate, phosphate, or a combination) as claimed in instant Claim 9, from which Claims 21, 22, and 23 each depend. Kageyama is silent as to the amount of residual ions. Further, there is no suggestion or incentive that the combination of the two references would disclose or teach the low residual ion content of the instant claims. Therefore, Brack in view of Kageyama does not render the invention of the instant claims obvious.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 07-0862.

Respectfully submitted,

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